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**Nelson et al.**

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(54) **DRUG RELEASING BIODEGRADABLE  
FIBER IMPLANT**

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(58) **Field of Search** ..... **424/426**; **514/772.3**

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(57) **ABSTRACT**

The invention provides tissue engineering compositions and  
methods wherein three-dimensional matrices for growing  
cells are prepared for in vitro and in vivo use. The matrices  
comprise biodegradable polymer fibers capable of the con-  
trolled delivery of therapeutic agents. The spatial and tem-  
poral distribution of released therapeutic agents is controlled  
by use of defined nonhomogeneous patterns of therapeutic  
agents in the matrices.

**32 Claims, 11 Drawing Sheets**

